

AMENDMENTS

IN THE CLAIMS:

Please amend claim 8, and cancel claim 19 as follows below:

1. (Previously presented) A method for cleaning a wafer, comprising:
patterning a via or a trench, or both, in a porous, low-k dielectric layer overlying the wafer;
cleaning a polymer residue from surfaces of the patterned dielectric layer using a wet clean solvent; and
performing a non-plasma anneal on the patterned dielectric layer to remove a component of the solvent prior to a metal deposition.
2. (Previously presented) The method of claim 1, wherein the dielectric layer comprises at least one of: an organosilicate glass (OSG), a methylsilsesquioxane (MSQ) dielectric material, a fluorine-doped silicate glass (FSG), and a silicon-dioxide (SiO₂).
3. (Previously presented) The method of claim 1, wherein the wet clean solvent comprises an acid.
4. (Previously presented) The method of claim 3, wherein the component comprises dimethyl acetamide (DMAC).
5. (Previously presented) The method of claim 1, further comprising:
performing a dry clean of the patterned dielectric layer to remove a photoresist, prior to cleaning the polymer residue.

6. (Previously presented) The method of claim 5, wherein the dry clean comprises a plasma including at least one of: hydrogen, oxygen and an inert gas.

7. (Previously presented) The method of claim 1, wherein the anneal comprises a low-pressure anneal.

8. (Currently amended) The method of claim [[1]] 7, wherein the low-pressure anneal is performed in substantially a vacuum.

9. (Previously presented) The method of claim 1, wherein the anneal comprises a high-temperature anneal.

10. (Previously presented) The method of claim 9, wherein the high-temperature anneal is performed at a higher temperature than a boiling point of the component.

11. (Previously presented) The method of claim 9, wherein the high temperature anneal is performed at a temperature less than or equal to 300 degrees Celsius.

12. (Previously presented) The method of claim 9, wherein the high temperature anneal is at least partially performed at 250 degrees Celsius.

13. (Previously presented) The method of claim 1, wherein the anneal is performed for a duration that does not alter a critical dimension of the patterned dielectric layer and does not cause a metal extrusion.

14. (Previously presented) The method of claim 13, wherein the duration comprises at most three minutes.

15. (Previously presented) The method of claim 1, wherein the anneal excludes an application to the patterned dielectric layer of a plasma generated from at least one of: a radio-frequency energy and a microwave energy.

16. (Canceled).

17. (Previously presented) The method of claim 1, wherein the metal deposition includes a copper deposition.

18. (Previously presented) The method of claim 1, wherein the metal deposition comprises at least one of: a barrier deposition and a metal seed layer deposition.

19. (Canceled).

20. (Previously presented) A method for removing volatile cleanser compounds from a post-etch substrate, comprising:

performing a plasma strip of an exposed low k dielectric material to remove a photoresist residue after an etch of the material;

performing a wet clean process using a fluorine-based solvent to remove a polymer residue of the plasma strip from the material; and

performing a low-pressure, high-temperature, limited-duration anneal after the wet clean process and prior to a metal barrier deposition to remove a component of the fluorine-based solvent from the material, wherein the anneal is exclusive of an application of a plasma generated from one or more of: a radio-frequency (RF) radiation and a microwave radiation.